UNIVERSITY OF ALBERTA
FACULTY OF SCIENCE
Department of Computing Science

SOFTWARE PRODUCT MANAGEMENT

STANLEY'S PROBLEM: PART 1

WRITE USER STORY

Write User Stories

To generate a list of user stories, you and the development team have decided to host an online meeting with members from cross-functional teams: designers, testers, subject matter experts, and of course, the stakeholders. Traditionally, you would meet in a room with lots of wall space for whiteboards or sticky notes, where you and the team can collaborate and brainstorm ideas. Since work from home is becoming more common, your team is geographically distributed, and for the first time, you are shifting everything online. After understanding the project background, the development team has identified two roles: the developer and the account holder. The team decides to start with the "developer" role since the "account holder" is essentially a developer with an account.

Story for Developer (Proposed Solution for Prompt 1)

One of the developers, Sam, is new to the team--in fact, he is also new to agile development. He did some research on it, and he remembers there's a simple format for writing user stories:

"As a [type of user] ,

I want [some particular feature] ,

so that [some benefit is received] ".

The first user story he writes is:

> As a developer,
>
> I want to be able to browse questions,
>
> so that I can look for questions that interest me

This is a good starting point. Next, Madison covers the up-vote and down-vote features:

> As a developer,
>
> I want to be able to up-vote good questions,
>
> so that developers know that this is a good solution

> As a developer,
>
> I want to be able to down-vote bad questions,
>
> so that developers don't follow this advice

Excellent work. You tell the team to keep working on writing the stories and post them to the chat for later discussion. A few minutes later, you ask them to pause and gather what we have so far:

(This is the proposed solution for prompt 1)

As a developer, I want to be able to browse questions, so that I can look for questions that interest me.
As a developer, I want to be able to up-vote good questions, so that developers know that this is a good solution.
As a developer, I want to be able to down-vote bad questions, so that developers don't follow this advice.
As a developer, I want answers to questions to be sorted by validity (# of up-votes), so that the best answers appear near the top.

> As a developer, I want to see a list of similar questions to the one I am viewing, so that I can find a solution faster.

> As a developer, I want to search for questions based on keywords, so that I can find related questions.

Splitting a User Story (Proposed Solution for Prompt 2)

The developers have some questions about the search feature:

> As a developer, I want to search for questions based on keywords, so that I can find related questions.

Search by keywords is a bit broad and general. Since Stanley, the client, wrote this user story, the team wants him to clarify it. They ask Stanley if he wants a simple search that matches keywords with one field (e.g., question titles) only or if he wants a full-text search that matches the search criteria with question title, body, category, and author? How about searching questions under specific categories?

Stanley wants it all. To be specific, he wants a simple search functionality that matches the search criteria with both question title and body. He also wants advanced full-text search that matches all fields. Search should also work when specific categories (e.g., AI, Mobile Dev, Algorithm, etc.) are selected.

The development team then split this user story into three smaller ones:

(This is the proposed solution for prompt 2)

As a developer,

I want to perform a simple search for questions that match keywords in both the title and body fields,

so that I can find related questions.

> As a developer,
>
> I want to perform a full-text search of the question title, body, author, and category,
>
> so that I can find precisely what I want.

> As a developer,
>
> I want to search for questions by category (eg. AI, Algorithms, Software Development etc.),
>
> so that I can quickly find what I'm looking for.

What About Accounts?

The only thing that's left now is the account features for developers - sign up and sign in. Zoe writes one for sign up:

> As a developer,
>
> I want to sign up for an account,
>
> so that I can start activities that only registered users can perform.

Sign in seems straightforward too. Sam just posts one:

> As a developer,
>
> I want to sign in to my account,
>
> so that I can start activities that only registered users can perform.

Madison thinks this story is fine; however, there's something more she wants to clarify with the client. She asks Stanley what his opinion about third-party logins is and if he wants one for his site. Stanley is interested in this idea but is not sure what the benefit of using it is. Madison explains that it will make the sign-up/sign-in process faster as users don't have to create and remember yet another set of username and password. Stanley likes this idea and chooses Google and Github from a list of some popular third-party login service providers (Google, Twitter, Yahoo, Facebook, and Github).

Madison then rewrites Sam's story and posts two more to the chat:

> As a developer,
>
> I want to sign in with an email and password,
>
> so that I can start activities that only registered users can perform.

> As a developer,
>
> I want to sign in with my Google account,
>
> so that I don't have to remember yet another username and password.

> As a developer,
>
> I want to sign in with my Github account,
>
> so that I don't have to remember yet another username and password.

That's all the stories the team and Stanley can come up with for Developer. Now, it's time to move on to Account Holder.

Story for Account Holder (Proposed Solution for Prompt 3)

One big difference that separates the Developer from an Account Holder is that only account holders can post and respond to questions and/or answers. Alex quickly posts three stories:

(This is the proposed solution for prompt 3)

> As an account holder,
>
> I want to post questions,
>
> so that I can receive answers from other developers.

> As an account holder,
>
> I want to be able to respond to questions,
>
> so that I can assist other developers.

> As an account holder,
>
> I want to be able to comment on answers,
>
> so that I can elaborate on or ask questions about an answer.

These are the core functionalities for our application - after all, is a Q&A site for developers. This leads Madison to ask Stanley and the team about their opinions on notifications. Madison explains further: How does a developer know when someone answers a question they post? Do they check frequently or do we perhaps send them a notification? Do we do the same for comments?

Everyone agrees that sending a notification is a good idea, but to avoid spamming, they decide to exclude notifications for comments. This leads Madison to post:

> As an account holder,
>
> I want to receive notification when someone answers my question,
>
> so that I can check a potential solution right away.

"Bookmark" and "Watchlist" (Proposed Solution for Prompt 4)

The team knows Stanley wants to "bookmark" and "watchlist" a question. However, they can't quite tell the difference between them, so they ask Stanley to elaborate it a bit. Stanley explains that the key difference between "bookmark" and a "watchlist" is the notification - if an account holder puts a question into their "watchlist," whenever someone answers this question, they would get a notification. In contrast, bookmarked questions are just for reference-- there's no future action. Zoe posts these two stories in the chat:

(This is the proposed solution for prompt 4)

> As an account holder,
>
> I want to bookmark a question that I find useful
>
> so that I can navigate back to it when needed.

> As an account holder,
>
> I want to put a question into a watchlist,
>
> so that I can get notifications when someone answers it.

Account Management

Since a developer can sign up and sign in, it's pretty straightforward that an account holder should be able to sign out:

> As an account holder,
>
> I want to be able to log out of my account,
>
> so that I can keep my account safe.

The team knows Stanley wants developer accounts that can be updated to have a profile picture. The profile page should also show all questions that the developer has asked or responded to. So they add these two:

> As an account holder,
>
> I want to update my profile picture,
>
> so that people can see what I look like.

> As an account holder,
>
> I want my profile page to show the questions that I have asked or responded to,
>
> so that others can see what I've posted.

Before We Go …

These features pretty much cover a Q&A site's basic functionalities. Hence, the team asks Stanley if there is anything else he feels like adding. Stanley says everything looks great; however, he's a bit concerned that if a question never gets enough attention and no one answers it. He wants to know if there is a way for the site to "promote" a question.

The team starts a discussion and they suggest the following: if a developer doesn't know the answer to one question, but has a particular person in mind that is an expert in this field, they can invite this user to answer this question. The user will receive a notification on their end:

> As an account holder,
>
> I want to invite another user to answer one question,
>
> so that a question can be solved faster.

> As an account holder,
>
> I want to receive notification when someone invites me to answer a question,
>
> so that I can respond to it faster.

To Wrap up

The team and Stanley just finished writing stories. Together, they come up with 23 user stories:

US 1	As a developer, I want to be able to browse questions, so that I can look for questions that interest me.
US 2	As a developer, I want to be able to up-vote good questions, so that developers know that this is a good solution.
US 3	As a developer, I want to be able to down-vote bad questions, so that developers don't follow this advice.
US 4	As a developer, I want answers to questions to be sorted by validity (# of up-votes), so that the best answers appear near the top.
US 5	As a developer, I want to see a list of similar questions to the one I am viewing, so that I can find a solution faster.
US 6	As a developer, I want to be able perform a simple search for questions that match keywords in both the title and body fields, so that I can find related questions.
US 7	As a developer, I want to be able to perform a full-text search of the question title, body, author, and category, so that I can find precisely what I want.

US 8	As a developer, I want to search for questions by category (eg. AI, Algorithms, Software Development etc.), so that I can quickly find what I'm looking for.
US 9	As a developer, I want to sign up for an account, so that I can start activities that only registered users can perform.
US 10	As a developer, I want to sign in with an email and password, so that I can start activities that only registered users can perform.
US 11	As a developer, I want to sign in with my Google account, so that I don't have to remember yet another username and password.
US 12	As a developer, I want to sign in with my Github account, so that I don't have to remember yet another username and password.
US 13	As an account holder, I want to post questions, so that I can receive answers from other developers.
US 14	As an account holder, I want to be able to respond to questions, so that I can assist other developers.
US 15	As an account holder, I want to be able to comment on answers, so that I can elaborate on or ask questions about an answer.
US 16	As an account holder, I want to receive notification when someone answers my question, so that I can check a potential solution right away.
US 17	As an account holder, I want to bookmark a question that I find useful, so that I can navigate back to it when needed.
US 18	As an account holder, I want to put a question into a watchlist, so that I can get notifications when someone answers it.
US 19	As an account holder, I want to be able to log out of my account, so that I can keep my account safe.
US 20	As an account holder, I want to update my profile picture, so that people can see what I look like.
US 21	As an account holder, I want my profile page to show the questions that I have asked or responded to so that others can see what I've posted.
US 22	As an account holder, I want to invite another user to answer one question, so that a question can be solved faster.
US 23	As an account holder, I want to receive notification when someone invites me to answer a question, so that I can respond to it faster.

Next, the team will continue to work closely with Stanley to prioritize them and create a release plan so that Stanley knows what he can expect by when. Please proceed to part 2 of this story.